

Department of Commerce · National Oceanic & Atmospheric Administration · National Weather Service

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APPLICABLE TO NWSI 10-1601  
June 14, 2006***

***Operations and Services***

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***Flood Warning Verification***

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**NOTICE:** This publication is available at: <http://www.nws.noaa.gov/directives/>.

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***SUMMARY OF REVISIONS:*** This supplement supersedes Central Region Supplement 03-2003, Flood Warning Verification, dated May 30, 2003. The revisions pertain to a software conversion from Quattro Pro to Excel.

(signed by)

6/2/06

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Date

Flood Warning Verification

Table of Contents

1. Purpose..... 2

2. Background ..... 2

3. River Verification Process ..... 2

Appendices

1. Obtaining program files ..... 4

2 Entering Data ..... 4

3 Sending reports to CRH ..... 4

1. Purpose. The purpose of this supplement is to specify verification requirements for River Flood Warnings and Statements (AWIPS product categories FLW and FLS) with forecast points predicted to reach or exceed minor flood stage.

2. Background. Central Region field offices and regional headquarters will use output from a regionally supported application to meet objectives stated in NWS Policy Directive 10-16. These objectives are to measure service quality and product accuracy, assess customer satisfaction, collect data on significant events, communicate performance information to senior government officials, determine required service improvements, and assess field office operational effectiveness.

The Central Region (CR) River Flood Verification Program is performed at the Weather Forecast Office (WFO), but is actually a verification of the hydrologic program as a whole. This includes but is not limited to, the quality of cooperative data, remote sensing data, river forecast models, River Forecast Center (RFC) hydrologist input, and WFO input. Flood Warning verification statistics will be used to identify areas where deficiencies may exist, such as in areal and temporal resolution of data. The Service Hydrologist or Hydrologic focal point may use verification results to improve his/her program. Likewise, RFC hydrologists may use the verification results to identify deficiencies and improve forecast operations. Specific RFC river forecast verification is performed separately and described in NWS Instruction 10-1601 section 4.2.

3. River Verification Process. All CR WFOs will perform verification for river flooding on initial warnings (FLW) or statements (FLS) with forecast to or above flood stage, as well as significant updates (e.g., upward change in category of flooding, locally defined significant criteria). Hydrologic Outlooks (ESF) and Hydrologic Statements (RVS) are not verified. However, observed data for flood crests where an FLS or FLW was *not* issued, should be verified following instructions in the river verification program documentation. Refer to the Appendix for further details regarding this application.

The verification program will be run for each month whether or not flooding occurred, according to program documentation instructions. The verification data file is due to Central Region Headquarters one month after the end of each month (e.g., verification for the month of January

would be due March 1). WFOs are encouraged to share the output of this data with their supporting RFC(s) and others as appropriate. The WFOs' verification data in the CRH database will be used to create a regional summary. Regional summary reports will include statistics (POD, FAR, CSI) for the verification termed "basic" in the program output which is similar to the flash flood statistics that are generated nationally. Regional reports will also include information on lead time to flood stage and crest.

## Appendix A - Obtaining and Operating the River Flood Verification Program

Table of Contents

|    |                               |   |
|----|-------------------------------|---|
| 1. | Obtaining program files ..... | 4 |
| 2  | Entering Data .....           | 4 |
| 3  | Sending reports to CRH .....  | 4 |

1. Obtaining program files. The River Flood Verification Program is an Excel spreadsheet program, filename rrvrfcn-mon-yyyy.xls, where mon is the abbreviated month and yyyy is the year for the latest version. The file can be downloaded from the CR metdat intranet server (crh-1), RVRVFCN subdirectory (i.e., n:\RVRVFCN\rrvrfcn-Jan-2006.xls) on the regional lan. Documentation is stored in the same subdirectory in a Word file named, rrvrfcn-doc-2006.doc. Follow instructions in this documentation for entering Flood Warning information.

2 Entering Data. Data should be entered onto the spreadsheet as described in rrvrfcn-doc-2006.doc. One record is designed for one forecast point, thus an initial warning or statement for several locations on a river would require several entries to the log sheet. For the purpose of this verification program, a forecast point pertains to any point for which the WFO issues a forecast in a flood statement or warning. Data point stages that might be added to the statement or warning to provide further information, are not verified.

3 Sending reports to CRH. After completing the spreadsheet and running the program according to documentation instructions, save the spreadsheet as hsa\_rvr\_mmyy using the following convention: hsa is the WFO's 3-letter identification and mmyy is a four digit number for month and year (e.g., dvn\_rvr\_0101 would be Davenport's January 2001 verification file). This file will be sent to CRH one month after the close of the verification month, to the metdat server, RVRVFCN/reports subdirectory (refer to instructions in the program documentation).